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10/686,127	10/15/2003	Joe P. Said	7450/9	7636

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CHARLES C. VALAUSKAS
BANIAK PINE & GANNON
Suite 1200
150 N. Wacker Drive
Chicago, IL 60606

EXAMINER

SIEDLER, DOROTHY S

ART UNIT	PAPER NUMBER
2626	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/686,127	Applicant(s) SAID ET AL.	
	Examiner Dorothy Sarah Siedler	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) ☒ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) ☐ Notice of Informal Patent Application |
| 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) ☐ Other: _____ |

DETAILED ACTION

This is the initial response to the application filed October 15, 2003. Claims 1-19 are pending and are considered below.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1,8,9 and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recites "a first stage input and a second stage input", however no support for this is found in the specification. The specification supports a first stage input, however no description is provided for a second stage input. Claim 19 is rejected for similar reasons.

Claims 8 recites translating by means of "speech recognition of the first stage input and the second stage input", however there is no support for this found in the specification. The specification supports recognition of speech on a first stage input, however no description is provided for a second stage input or speech recognition performed on that second stage input. Claim 9 is rejected for similar reasons.

The examiner interprets a first and second stage input as two inputs, each input received from a different peripheral device. This interpretation is used throughout the remainder of this office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,5-8,10-15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Greene** (6,377,925) in view of **Lemlouma** ("NAC: A Basic Core for the Adaptation and Negotiation of Multimedia Services" OPERA Project, 2001).

As per claim 1, **Greene** disclose a method of input conversion to output, said conversion method comprising: entering a first stage input and a second stage input (column 4 lines 46-52, *multiple inputs from multiple peripheral devices are received*); translating the first stage input and the second stage input into an electronic format (column 4 line 65- column 5 line 9, *inputs are received through a microphone or keyboard, which turns the analog input into an electronic signal which is processed by the computer*). However, **Greene** does not disclose converting the electronic format into standard XML encoded with accessibility information, transforming the standard XML encoded with accessibility information into individual version of XML dependent on

desired output, and utilizing a rendering engine to modify the individual version of XML into a format for the output. **Lemlouma** discloses converting the electronic format into standard XML encoded with accessibility information (Section 3 Architecture and section 4.2 The UCM: User Context Module, *documents are saved in a server using XML format, and a user profile, which dictates user preferences for data presentation, are stored as an XML file*), converting the XML encoded with accessibility information into individual version of XML dependent on desired output (section 2 Context of the Work, *the system provides multimedia to the user dependent upon a target service format and their desired context or device*), and utilizing a rendering engine to modify the individual version of XML into a format for the output (section 2 Context of the Work, *the system provides multimedia to the user dependent upon a target service format and their desired context or device*). **Lemlouma** discloses a system that provides a basic core to adapt multimedia information dependent upon a user specified output (I Introduction, last paragraph).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to encode the inputs as XML, then convert these to specific outputs depending on a desired output in **Greene**, since XML provides a good separation between data and presentation, which makes adaptation of multimedia information to different platforms easy, as indicated in **Lemlouma** (Section I Introduction, last paragraph and section 2 Context of the Work, first paragraph).

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As per claim 2, **Greene** in view of **Lemlouma** disclose the conversion method of claim 1, and **Greene** further discloses wherein said entering step includes speaking (column 4 lines 65-67).

As per claim 5, **Greene** in view of **Lemlouma** disclose the conversion method of claim 1, and **Greene** further discloses wherein said entering step includes by a peripheral (column 4 lines 46-52).

As per claim 6, **Greene** in view of **Lemlouma** disclose the conversion method of claim 1, and **Greene** further discloses wherein said entering step includes semantic information (column 4 line 65-67, *speech*).

As per claim 7, **Greene** in view of **Lemlouma** disclose the conversion method of claim 1, and **Greene** further discloses wherein said entering step includes providing format and structure instructions (column 6 lines 10-12, *the user can choose to enable or disable any of the translation functions, which dictate the output method of the translated input*).

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As per claim 8, **Greene** in view of **Lemlouma** disclose the conversion method of claim 2, however **Greene** does not explicitly disclose wherein said translating step includes the use of automatic speech recognition of the first stage input and the second stage input to produce the electronic format. **Greene** does disclose a system that receives speech inputs and converts it into text, or other formats (column 4 line 65 – column 5 line 9), therefore it is inherent that speech recognition is used.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have a translating step include automatic speech recognition at a first and second stage step in **Greene** and **Lemlouma**, since a two stage input would provide parallel processing of speech which enables increased speech processing, specifically for more than one speaker, and enables a real-time implementation.

As per claim 10, **Greene** in view of **Lemlouma** discloses the conversion method of claim 1, however **Greene** does not disclose wherein the individual version of XML is XHTML for desired output. **Lemlouma** discloses wherein the individual version of XML is XHTML for desired output (section 2 Context of the Work, *the system provides multimedia to the user dependent upon a target service format and their desired context or device, one of the target service formats including XHTML*).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention use the individual version of XML as XHTML in **Greene** and **Lemlouma**, since XHTML formatting instructions can be easily obtained, thus removing

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the need to devote time and resources to develop a new method to represent image and text information.

As per claim 11, **Greene** in view of **Lemlouma** discloses the conversion method of claim 1, however **Greene** does not disclose wherein the individual version of XML is VoiceXML for desired output. **Lemlouma** discloses wherein the individual version of XML is VoiceXML for desired output (section 2 Context of the Work, *the system provides multimedia to the user dependent upon a target service format and their desired context or device, one of the target service formats including VoiceXML*).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention use the individual version of XML as VoiceXML in **Greene**, since VoiceXML formatting instructions can be easily obtained, thus removing the need to devote time and resources to develop a new methods to represent speech information.

As per claim 12, **Greene** in view of **Lemlouma** discloses the conversion method of claim 1, however **Greene** does not disclose wherein the individual version of XML is a custom XML for desired output. **Lemlouma** disclose that the individual version of XML is a custom XML for desired output (section 2 Context of the Work, *the system provides multimedia information to the user dependent upon a target service format and their desired context or device*).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the individual version on XML as a custom XML in **Greene**, since it would enable the system to easily represent information structured according to a user request without the need to devote time and resources to a new method to represent image and text information.

As per claim 13, **Greene** in view of **Lemlouma** disclose the conversion method of claim 10, and **Greene** further discloses wherein the desired output is text (column 5 lines 2-3).

As per claim 14, **Greene** in view of **Lemlouma** disclose the conversion method of claim 11, and **Greene** further discloses wherein the desired output is synthesized speech (column 7 lines 53-55).

As per claim 15, **Greene** in view of **Lemlouma** disclose the conversion method of claim 12, and **Greene** further discloses wherein the desired output is virtual sign language (column 6 lines 31-33).

As per claim 17, **Greene** in view of **Lemlouma** discloses the conversion method of claim 12, however **Greene** does not explicitly disclose wherein the desired output is

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electronic large print. **Greene** does disclose an electronic translator to assist a person with disabilities, which outputs information as text (Abstract).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to output electronic large print in **Greene**, since it would provide enhanced functionality for a user who is visually impaired.

As per claim 18, **Greene** in view of **Lemlouma** disclose the conversion method of claim 1, however **Greene** does not disclose wherein said transforming step includes the use of extensible stylesheet language transformations to transform the standard XML encoded with accessibility information into the individual version of XML dependent on desired output. **Lemlouma** discloses wherein said transforming step includes the use of extensible stylesheet language transformations to transform the standard XML encoded with accessibility information into the individual version of XML dependent on desired output (section 1 Introduction, last paragraph, and section 2 Context of the Work, second paragraph, *adaptations to multimedia information are performed by transformation methods using XSLT; those adaptations dependent upon the target service format*).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use extensible stylesheet language transformations to transform the standard XML encoded with accessibility information into the individual version of XML dependent on desired output in **Greene**, since XSLT stylesheets can be easily obtained,

thus removing the need to devote time and resources to develop a new method of transformation.

Claims 4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Greene** in view of **Lemlouma** as applied to claims 1,3,10-12 above, and further in view of **Blattner** ("Multimodal Integration" IEEE 1996).

As per claim 4, **Greene** in view of **Lemlouma** discloses the conversion method of claim 1, however neither disclose wherein said entering step includes writing. **Blattner** discloses a multimodal system, which is capable of integrating writing modalities (page 20, section Agents, *an agent based system creates agents for each modality, which processes its own signal; one of the modalities including writing*).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have an entering step that includes writing in **Greene** and **Lemlouma**, since it would enable an alternate input for a person with a speech disability.

As per claim 16, **Greene** in view of **Lemlouma** discloses the conversion method of claim 12, however neither disclose wherein the desired output is electronic Braille.

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Blattner discloses a multimodal system that can output Braille (page 16, section Computer Output modalities, *Braille is listed as a linguistic nonarbitrary output*).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include Braille as an output method in **Greene** and **Lemlouma**, since it would provide enhanced functionality for a user who is visually impaired.

Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Greene** in view of **Lemlouma** as applied to claim 1 above, and further in view of **Sakiyama** (5,953,363).

As per claim 3, **Greene** in view of **Lemlouma** discloses the conversion method of claim 1, however neither disclose wherein said entering step includes gesturing. **Sakiyama** discloses a system that uses input gestures for sign language recognition (column 15 line 6-20).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have an entering step include gestures in **Greene** and **Lemlouma**, since it would enable enhanced functionality for a person with a aural disability, thus improving communication as indicated in **Sakiyama** (column 1 lines 42-55).

As per claim 9, **Greene** in view of **Lemlouma** disclose the conversion method of claim 3, however neither disclose wherein said translating step includes the use of sign language recognition of the first stage input and the second stage input to produce the

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electronic format. **Sakiyama** discloses a system that performs sign language recognition on input gestures (column 15 lines 6-20). In addition, **Sakiyama** discloses a system that receives multiple inputs (column 8 lines 26-40 and Figure 1a).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use sign language recognition as a translation step in **Greene** and **Lemlouma**, since it would enable enhanced functionality for a person with a aural disability, thus improving communication as indicated in **Sakiyama** (column 1 lines 42-55). In addition, a two-stage input would provide parallel processing, which enables increased processing, specifically for more than one speaker, and enables a real-time implementation.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Sakiyama** in view of **Lemlouma** and further in view of **Zang** (6,865,599).

As per claim 19, **Sakiyama** disclose a method of input conversion to output, said conversion method comprising: entering a first stage input of speech (column 8 lines 27-30) and a second stage of gestures (column 15 lines 6-20), translating the speech input using automatic speech recognition into an electronic format (column 8 lines 27-40) and the gestures input using sign language recognition into an electronic format (column 15 lines 6-20). However **Sakiyama** does not disclose converting the electronic format into standard XML encoded with accessibility information, transforming the standard XML

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encoded with accessibility information using extensible stylesheet language transformations into XHTML for desired output of text, and utilizing a rendering engine of accessible instant messenger to modify the XHTML into the desired output of text.

Lemlouma discloses converting the electronic format into standard XML encoded with accessibility information (Section 3 Architecture and section 4.2 The UCM: User Context Module, *documents are saved in a server using XML format, and a user profile, which dictates user preferences for data presentation, are stored as an XML file*), transforming the standard XML encoded with accessibility information using extensible stylesheet language transformations into XHTML for desired output of text (section 1 Introduction, last paragraph, and section 2 Context of the Work, second paragraph, *adaptations to multimedia information are performed by transformation methods using extensible stylesheet language transformations (XSLT), those adaptations dependent upon the target service format, one of the target formats being XHTML*), utilizing a rendering engine to modify the individual version of XML into a format for the output (section 2 Context of the Work, *the system provides multimedia to the user dependent upon a target service format and their desired context or device*). **Lemlouma** does not explicitly disclose the using a rendering engine of accessible instant messenger to modify the XHTML into the desired output. However, **Lemlouma** does disclose a system for the adaptation of multimedia information between device with different service formats and multimedia representations (section 4 The NAC CORE, first paragraph). In addition, **Zang** discloses a system that uses an Instant Messenger to deliver XHTML data (column 29 lines 52-56). **Zang** discloses that Instant Messaging is a communications

format often used to represent media of different forms as formats (column 1 lines 30-33).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to convert the electronic format into XML with accessibility information, transform the XML using XSLT, then modify the XHTML to the desired output using an instant messenger in **Greene**, since XML provides a good separation between data and presentation, which makes adaptation of multimedia information to different platforms easy, as indicated in **Lemlouma** (Section I Introduction, last paragraph and section 2 Context of the Work, first paragraph), and an Instant Messenger provides ready made software for the presentation of media of different formats, such as rich text and voice messages, as indicated in **Zang** (column 29 lines 50-51), thus removing the need to spend time and resources developing a method to deliver multimedia data.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Nguyen (6,072,494) discloses a system for gesture recognition.
- Johnson (5,748,974) discloses a multimodal natural language interface.
- Trabelsi ("A Voice and Ink XML Multiodal Architecture for Mobile e-commerce Systems" Workshop on Mobile Commerce 2002) discloses a multimodal interface for voice application.

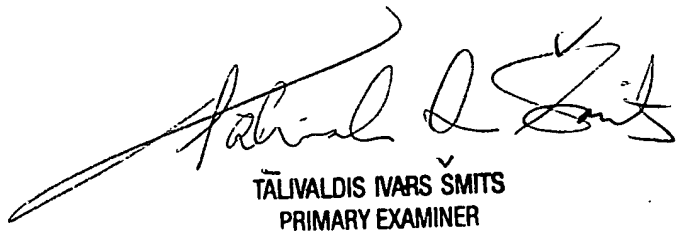
- Wang ("Implementation of a Multimodal Dialog System Using Extended Markup Languages" Conference on Spoken Language Processing 2000) discloses a multimodal system develop using XML.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dorothy Sarah Siedler whose telephone number is 571-270-1067. The examiner can normally be reached on Mon-Thur 9:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DSS



TĀIVALDIS IVARS SMITS
PRIMARY EXAMINER